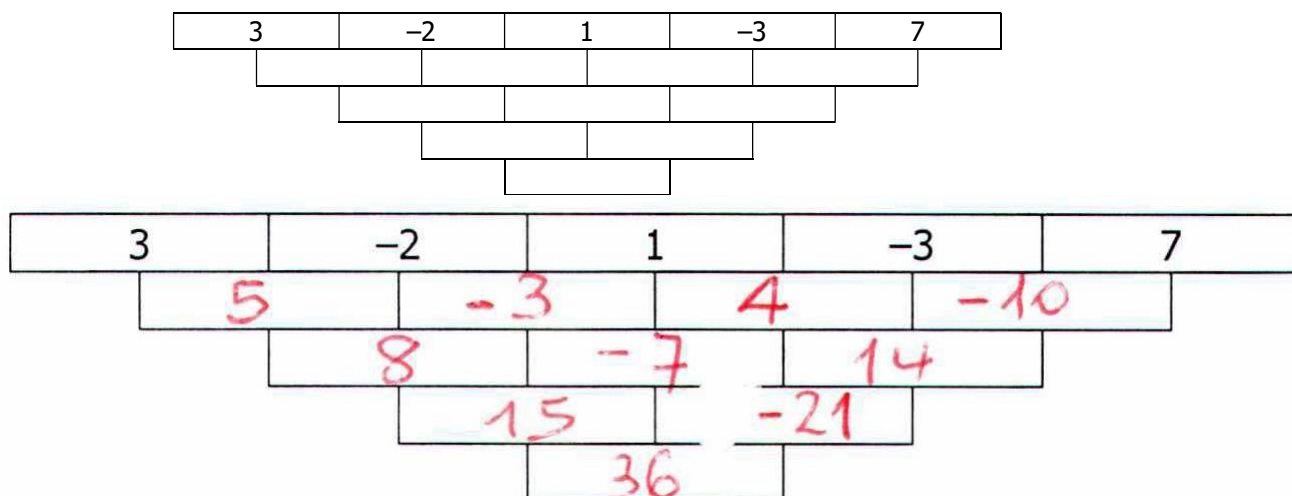


Lessons 04, 05 and 06. BC Integers, decimal numbers and decimal metric system

1. In this 'wall', subtract the right-hand from the left-hand number to find the number in the brick below.



2. Calculate: $[5 - (-3) \cdot (-2) + 15 : (-3)] + 2 \cdot [40 - 12 \cdot 3] =$

$$[5 - 6 - 5] + 2 \cdot [40 - 36] =$$

$$-6 + 2 \cdot 4 =$$

$$-6 + 8 = \boxed{2}$$

3. Calculate by writing the corresponding algorithm you use to get the result:

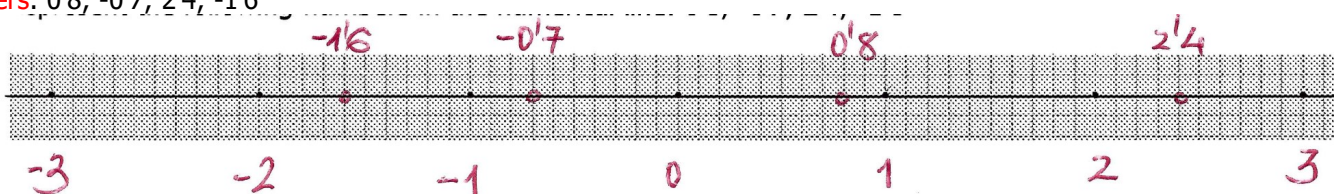
a) $87'25 - 23'508 =$

$$\begin{array}{r} 87'250 \\ - 23'508 \\ \hline 63'742 \end{array}$$

b) $0'075 \cdot 0'23 =$

$$\begin{array}{r}
 0'075 \\
 \times 0'23 \\
 \hline
 225 \\
 150 \\
 \hline
 0'01725
 \end{array}$$

4. Represent the following numbers in the numerical line. First you have to draw the origin, the unit and the integers: 0'8; -0'7; 2'4; -1'6



5. Do the following:

a) $0'53702 \cdot 0'001 =$

$$0'00053702$$

b) $0'7326 : 0'01 =$

$$73'26$$

c) Write in scientific notation: 3 450 000 000 =

$$3'45 \cdot 10^9$$

d) Write in decimal form: $5'43 \cdot 10^6 =$

$$5430000$$

6. Change the value to the indicated unit (include your operations to get the result):

a) $6.2 \text{ hm}^2 \text{ to m}^2$

b) 125.02 hm to km

c) $2045.3 \text{ mm}^3 \text{ to litres}$

d) 7.54 ha to hm^2

$$\begin{array}{ll}
 \text{a) } 6'2.10000 = 62000 \text{ m}^2 & \text{b) } 125'02 : 10 = 12'502 \text{ km} \\
 \text{c) } 2045'3 : 1000000 = 0'0020453 \text{ l} & \text{d) } 7'54 \text{ ha} = 7'54 \text{ hm}^2
 \end{array}$$

7. We collect 50 tons (decimal metric system) of corn per hectare from a crop. How many kg does it produce per m^2 ?

$$50000 \text{ kg} : 10000 \text{ m}^2 = 5 \text{ kg/m}^2$$

8. A village of 35000 people suffers a water cut. To give water to everybody the council carry a tank-truck with 105 m^3 of water to the main square to share among the neighbours. What quantity of water could each person receive on average?

$$\begin{array}{l}
 105 \text{ m}^3 = 105000 \text{ l} \\
 105000 : 35000 = 3 \text{ l/person}
 \end{array}$$

9. Answer the following questions. Include your operations.

a) I bought 3 pints of milk. How many litres did I buy? (A pint is about 470 ml)

$$3 \times 0'47 = 1'41 \text{ l}$$

b) The distance between my house and my school is 3.2 km. How many miles does it represent? (A mile is about 1.6 km)

$$3.2 : 1'6 = 2 \text{ miles}$$

c) The healthy intake¹ of salt a day is 3 g. How many ounces does it represent? (An ounce is about 30 g)

$$3 : 30 = 0'1 \text{ ounces}$$

10. a) What is the absolute value of a number?

It is the distance between the number and zero

b) What does it mean to measure something?

It is the result of comparing a quantity with a unit

c) What is a gram?

It is the mass of a cm^3 of water

¹ Consumo

Surname and name

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d) What is the volume of a litre?

It is the volume of 1dm^3